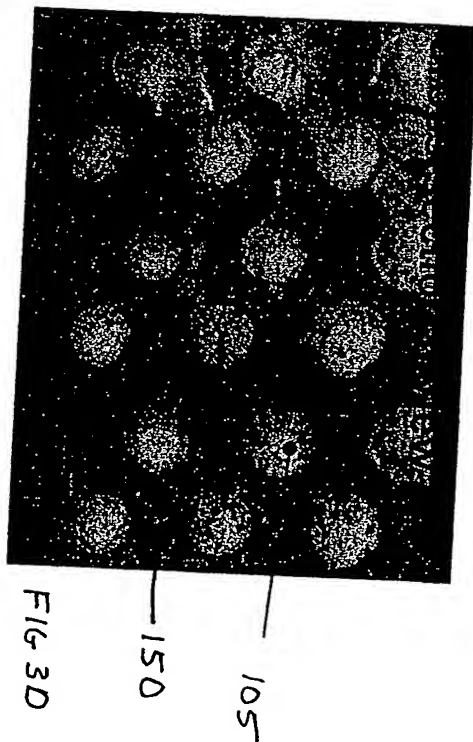
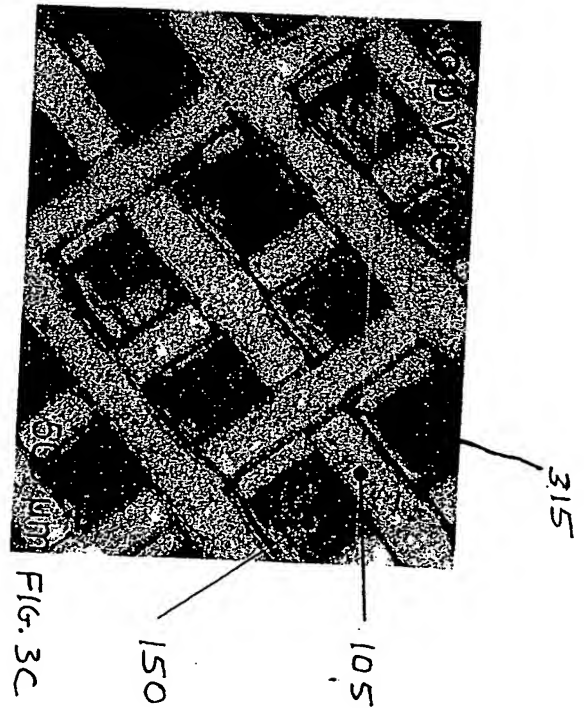
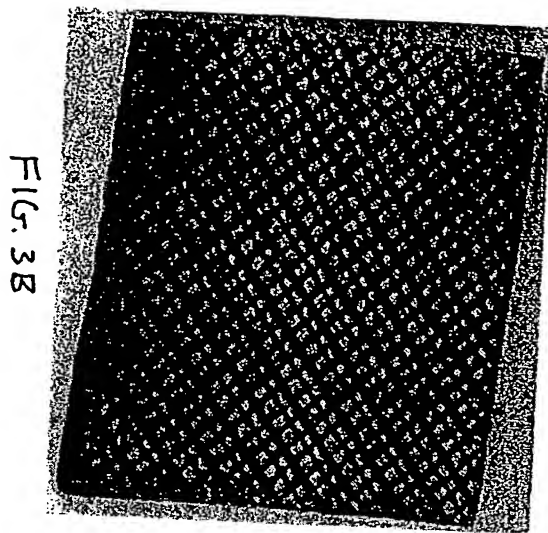
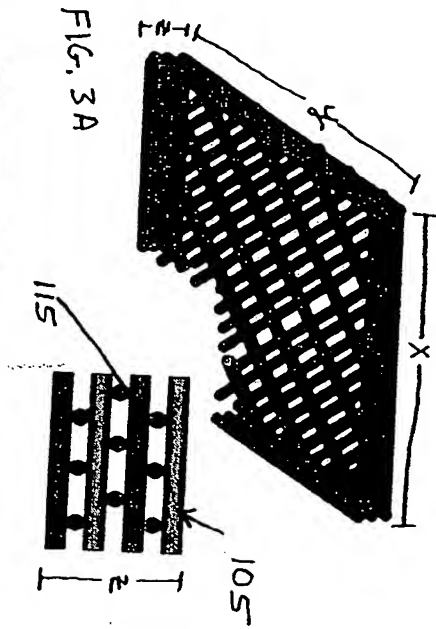


# 3-D network



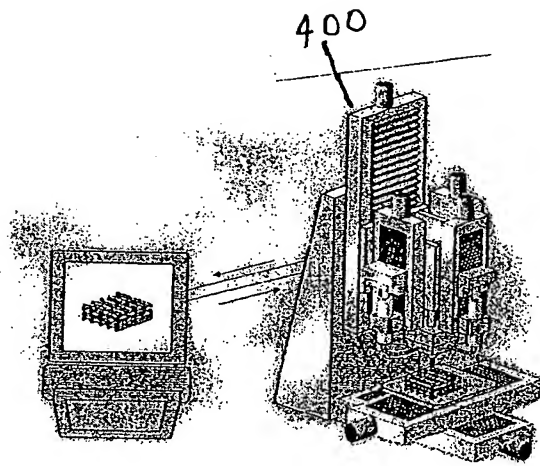


FIG. 4(a)

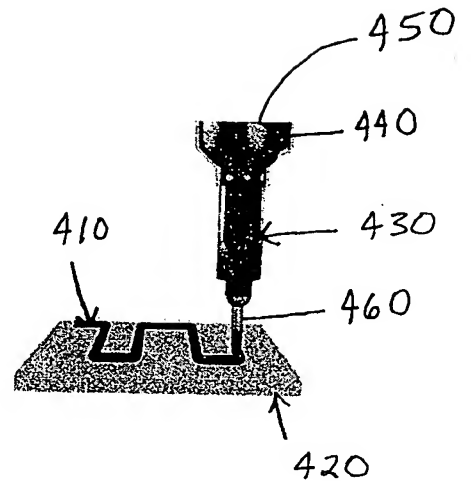


FIG. 4(b)

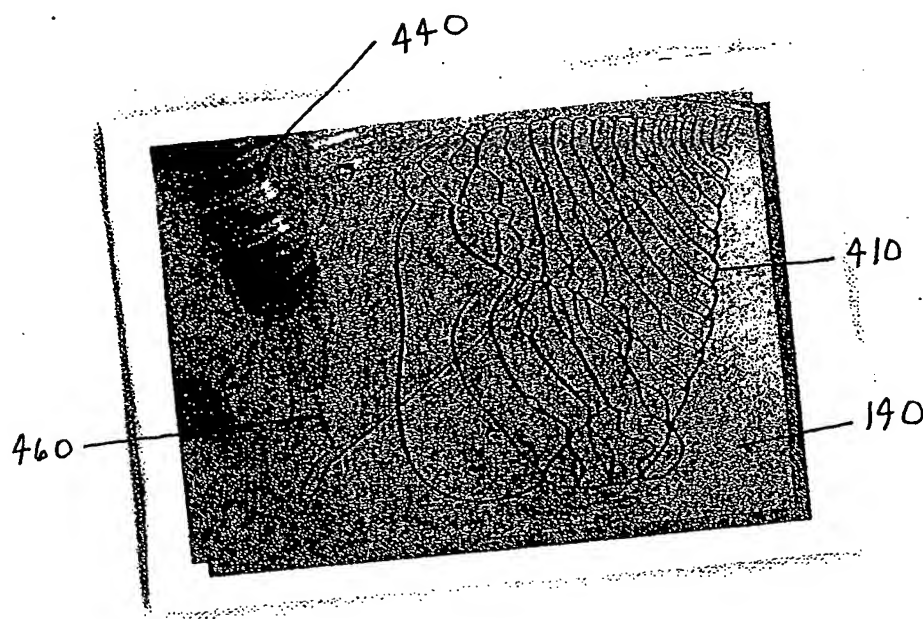
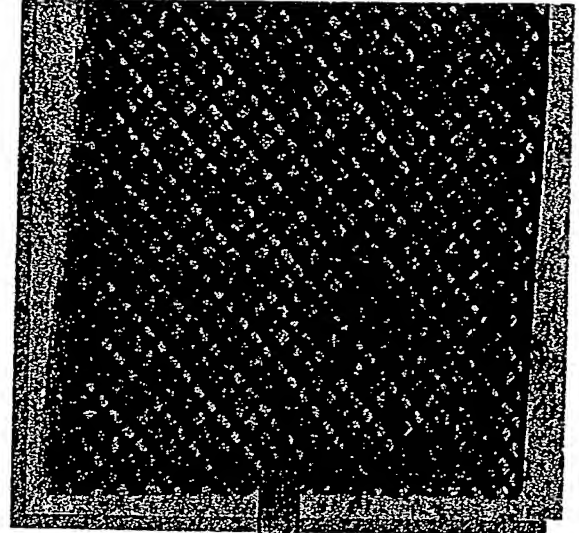
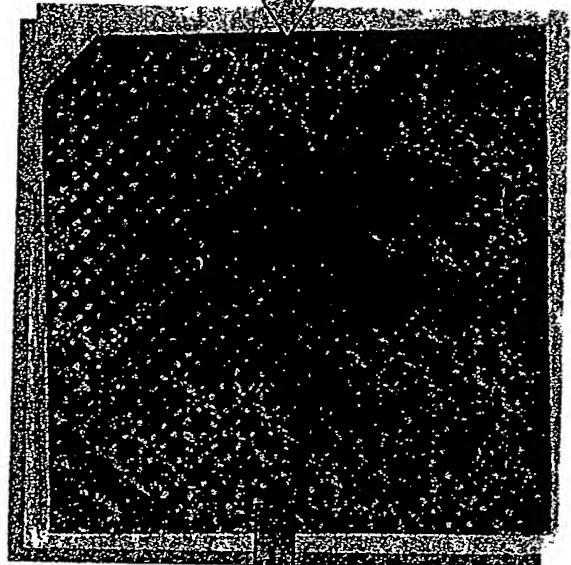


FIG. 5

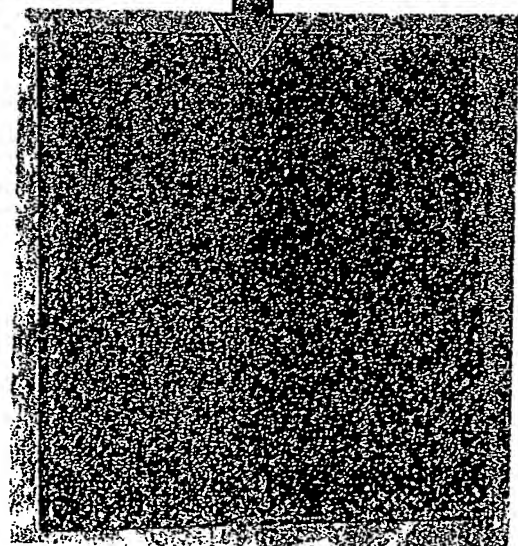
*Full Passageways*  
*FIG. 6A*



*Partially empty Passageways*  
*FIG. 6B*



*Empty Passageways*  
*FIG. 6C*



Sheet 7 of 21

FIG. 7B

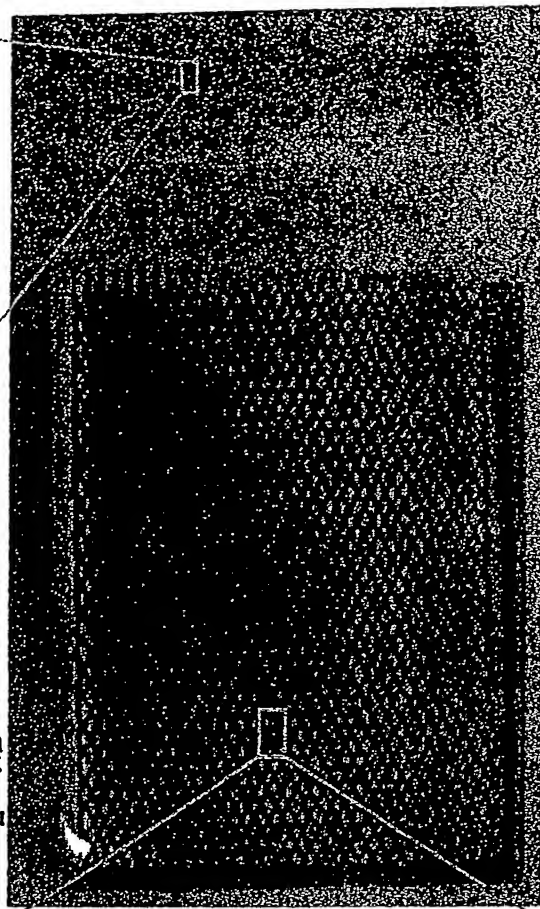
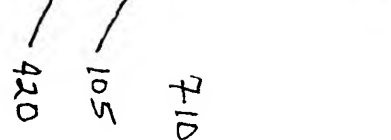
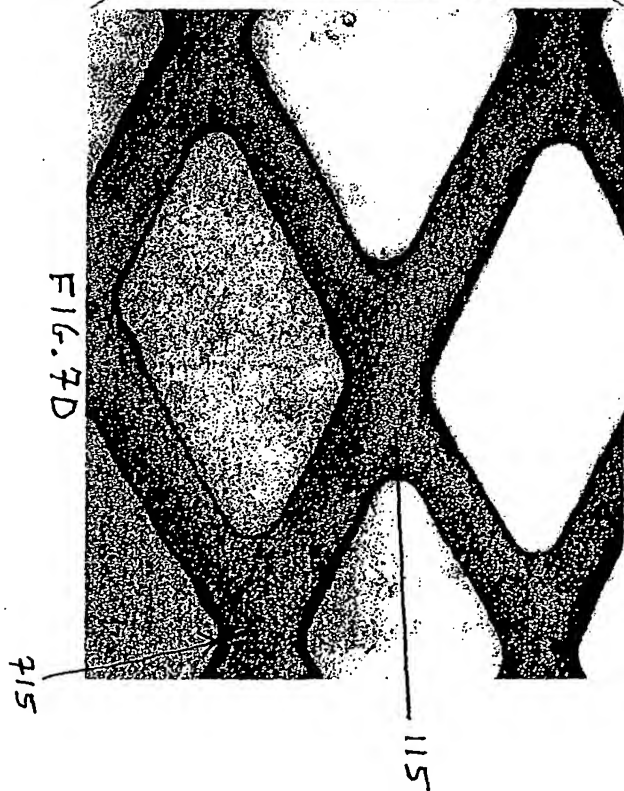


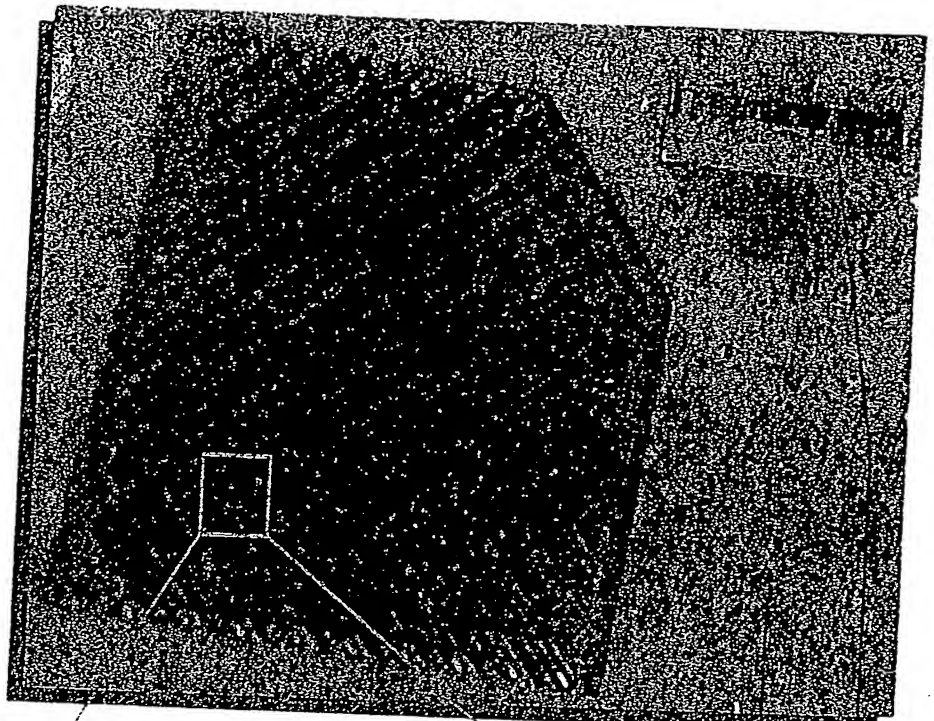
FIG. 7A

FIG. 7C



FIG. 7D





*Top view under Microscope*

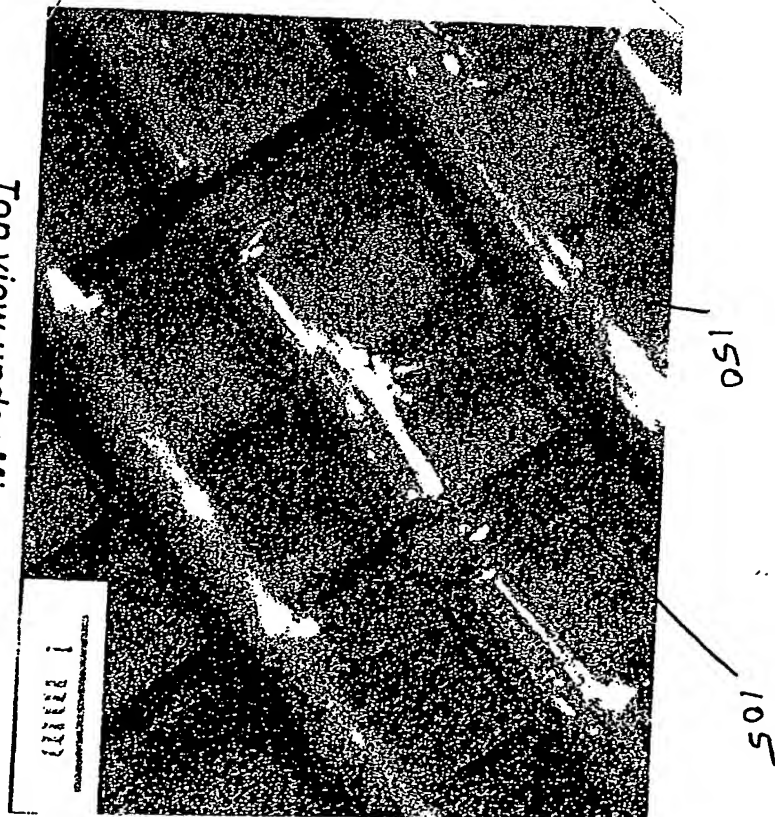


FIG. 8



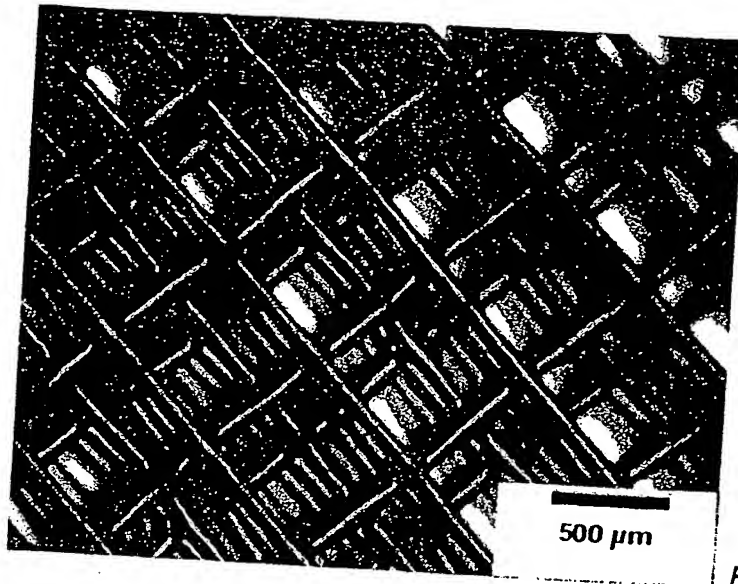


FIG. 9A

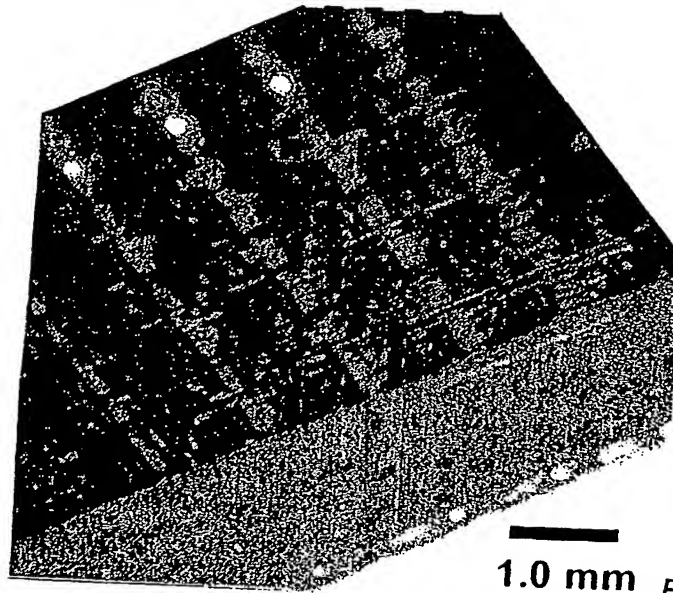
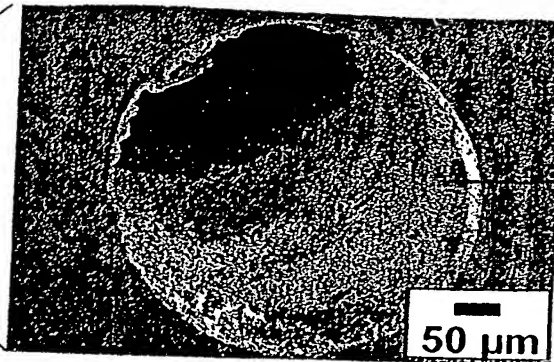
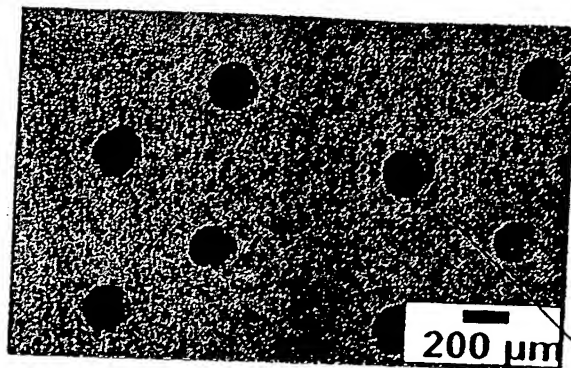


FIG. 9B



105

FIG. 9C

Passageway cross section

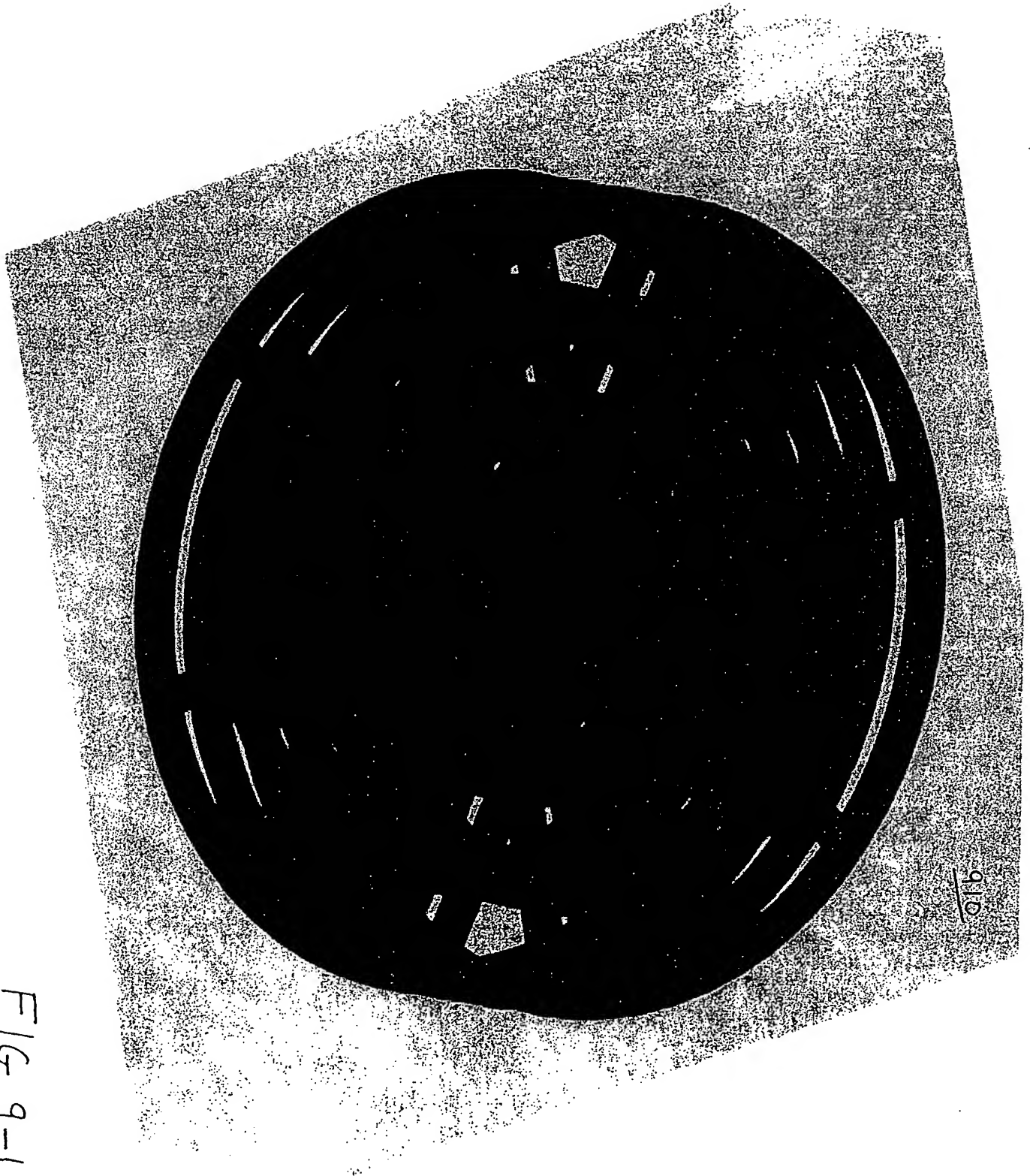
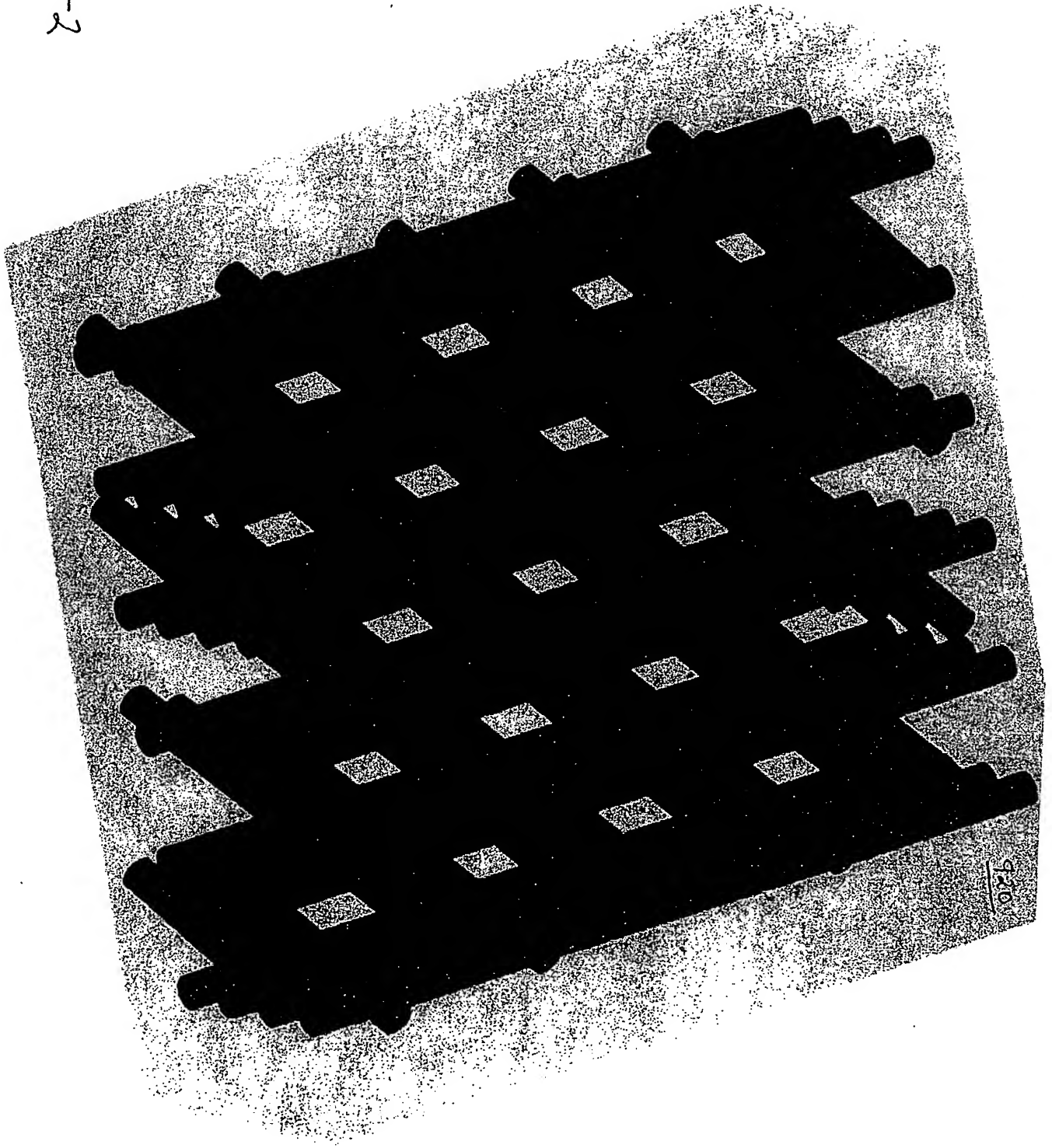


FIG. 9-1

FIG. 9-2



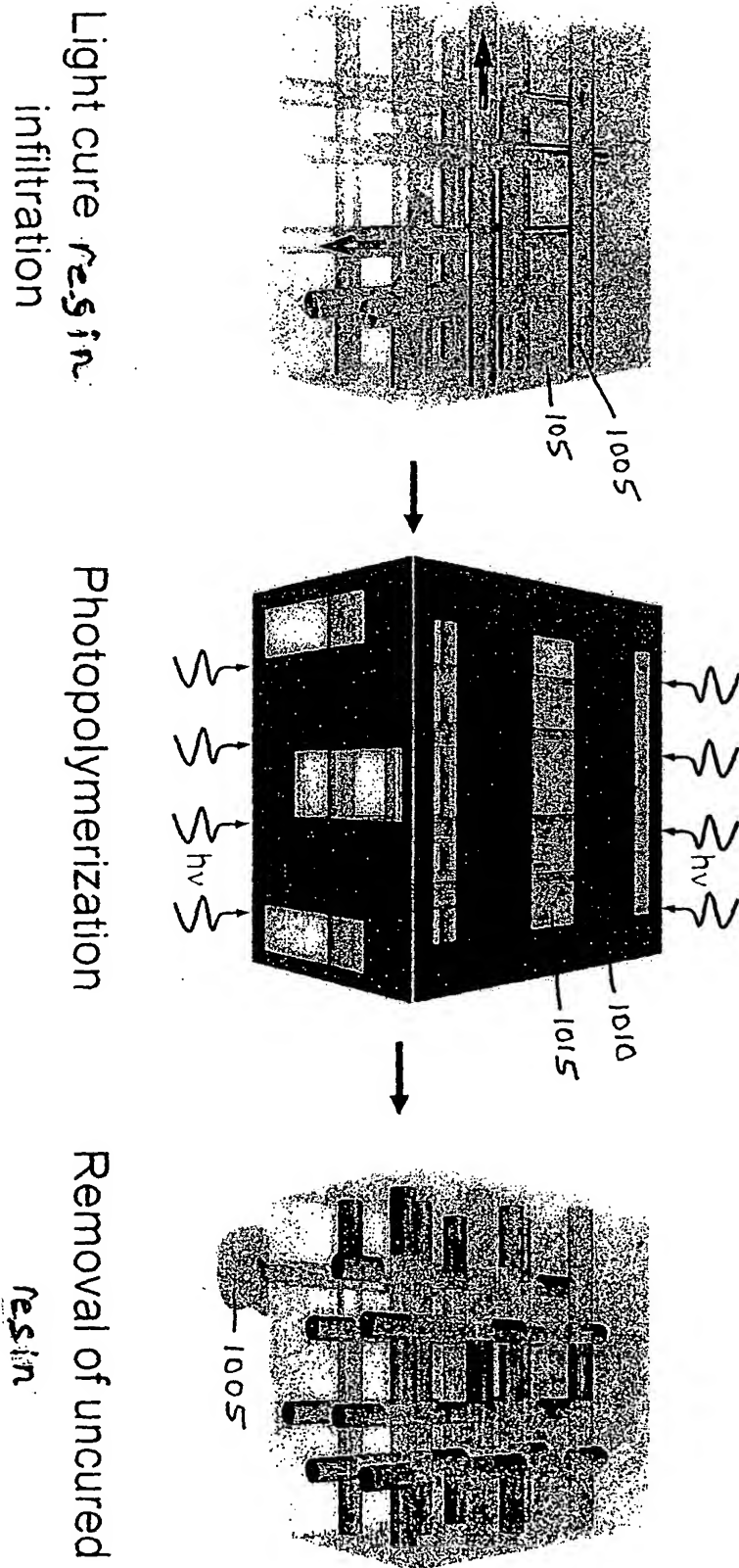


FIG. 10

1100

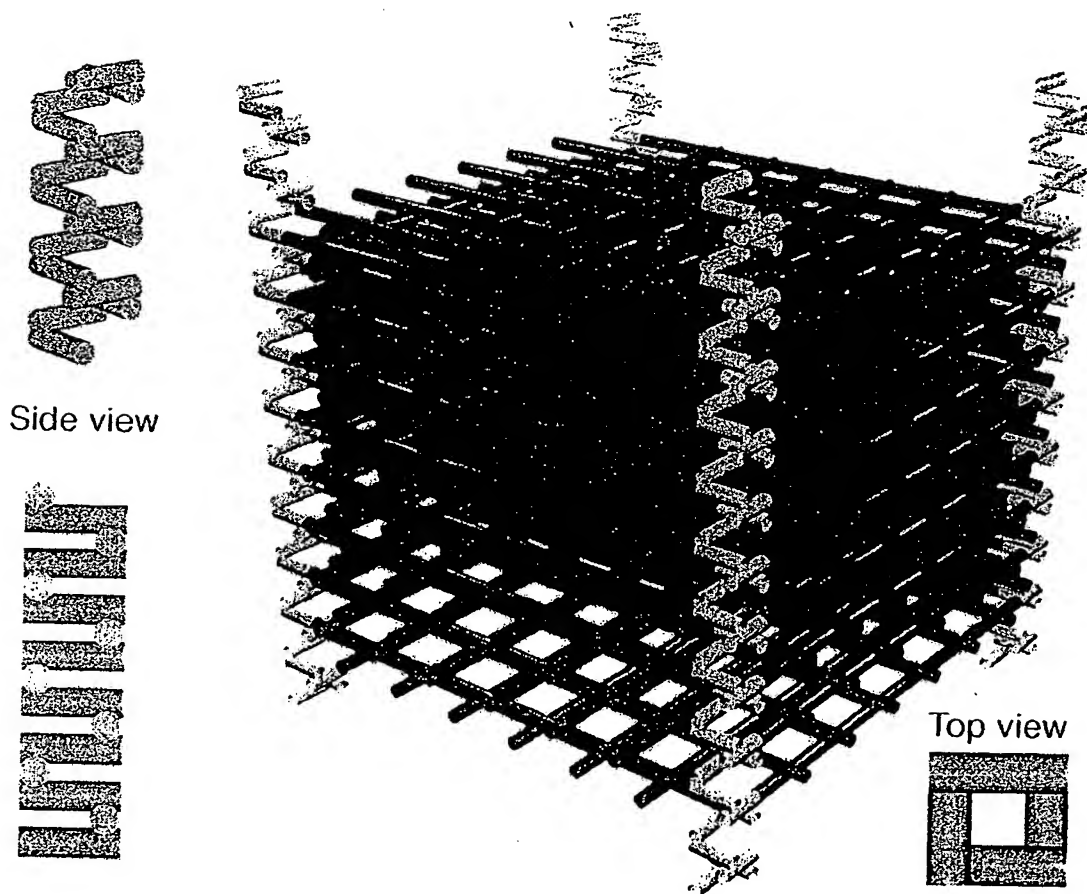
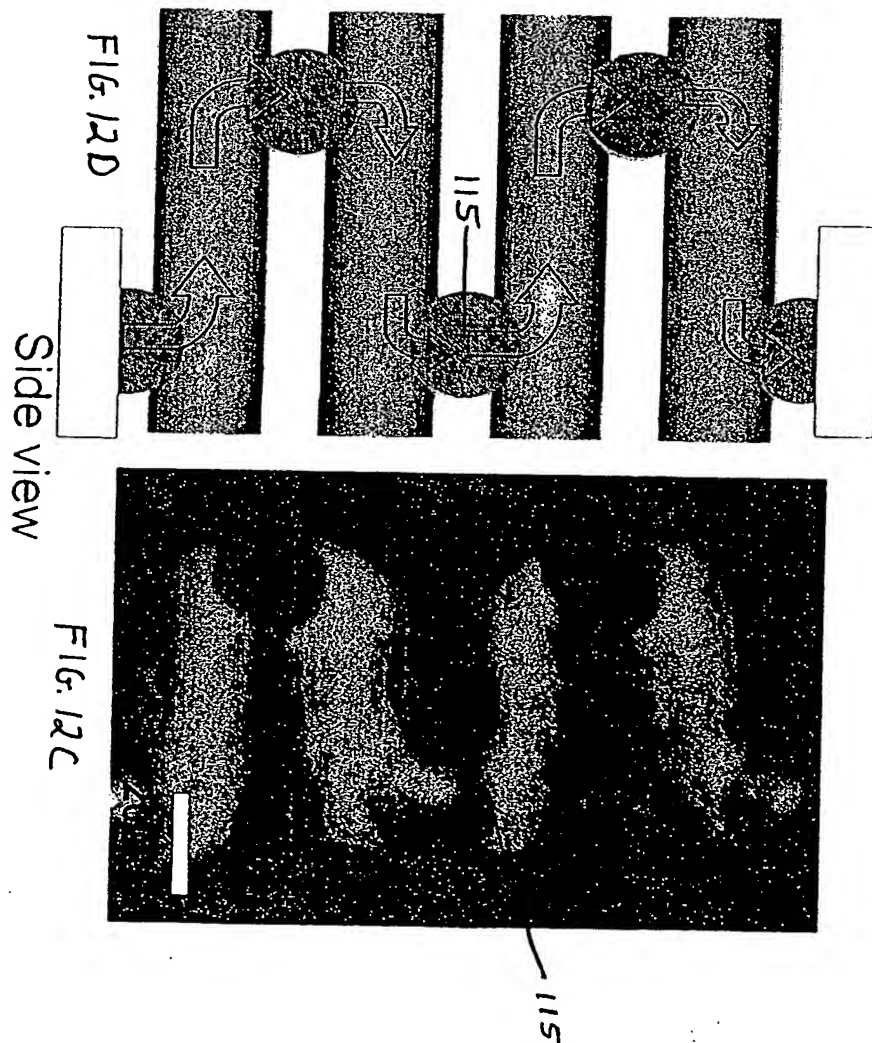
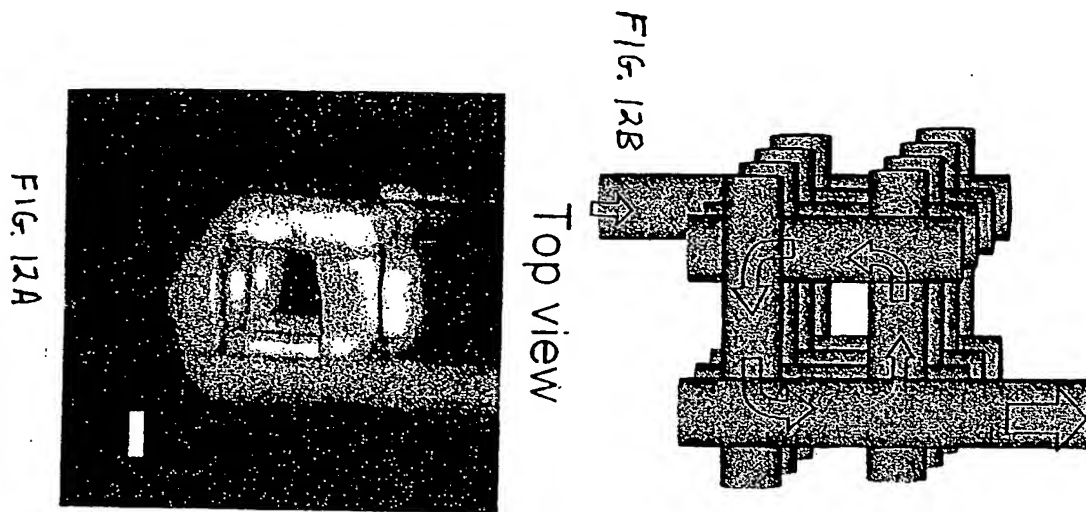


FIG. 11



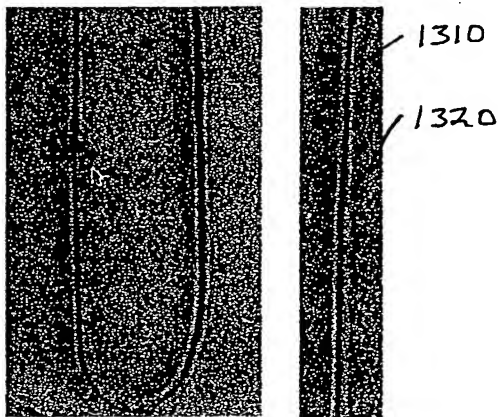
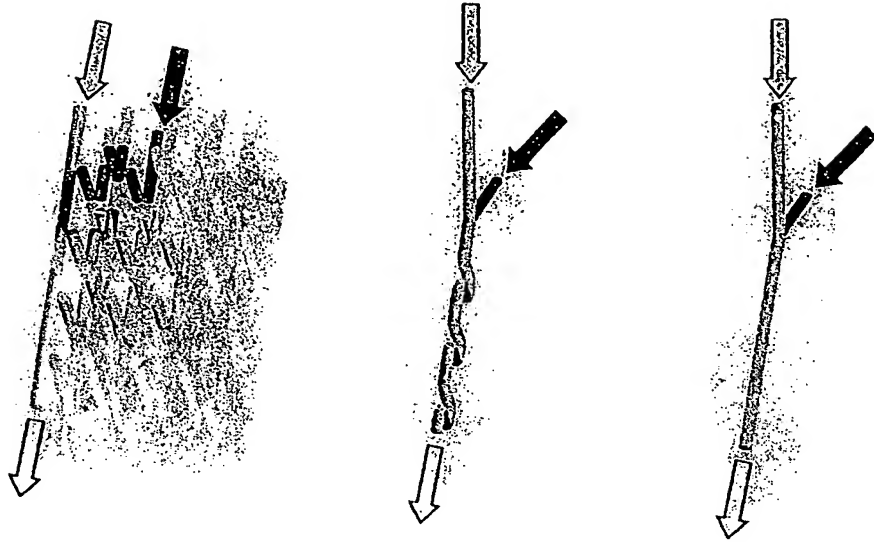


FIG. 13



Series of  
mixing towers  
(3-D)

Square wave  
channel (2-D)

Straight  
channel (1-D)

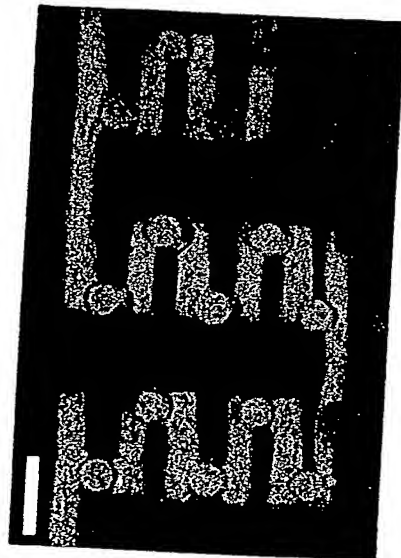


FIG. 14C



FIG. 14B

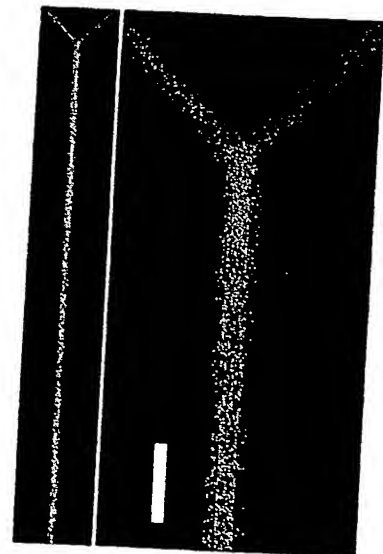


FIG. 14A



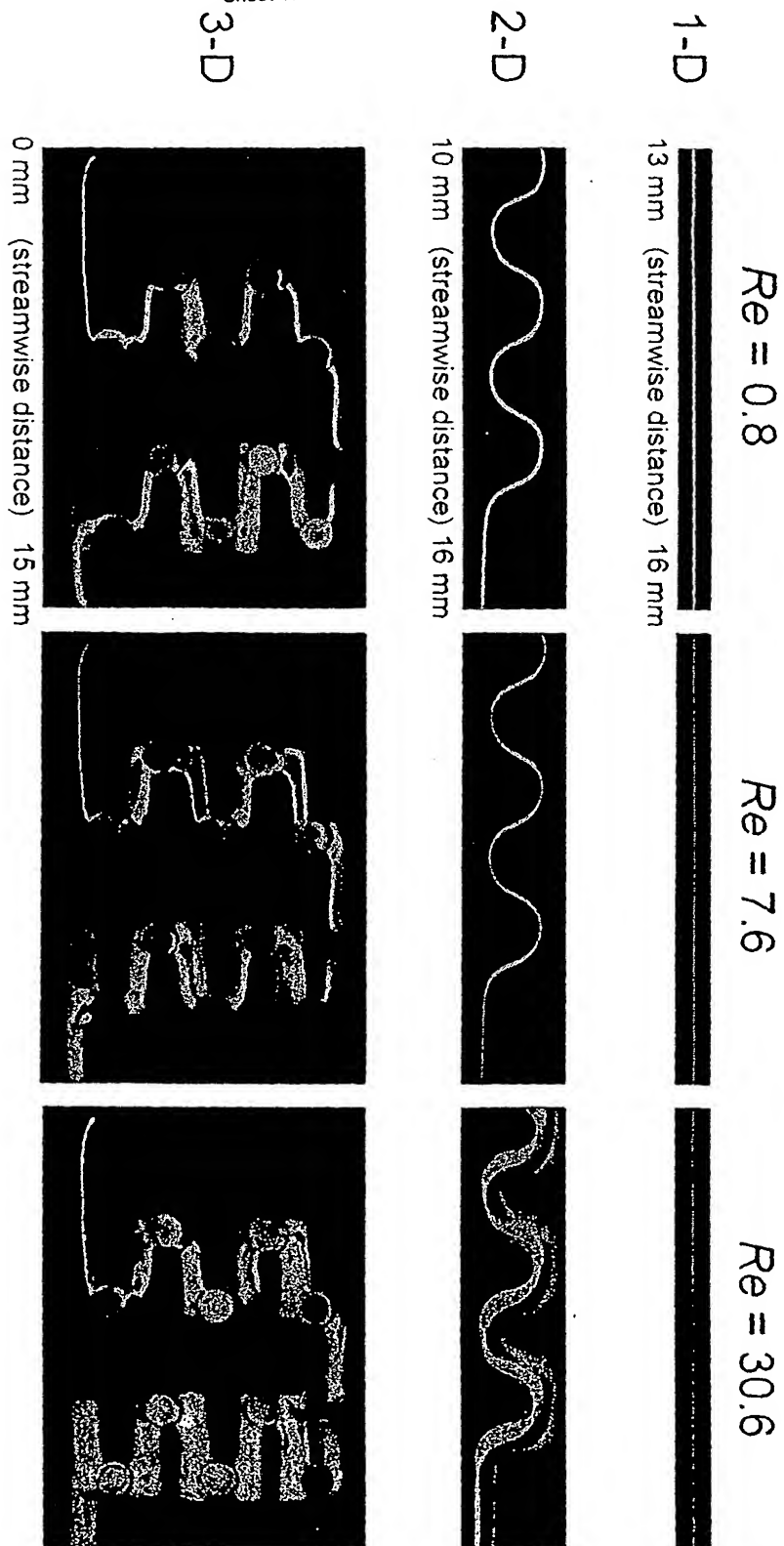


FIG. 15

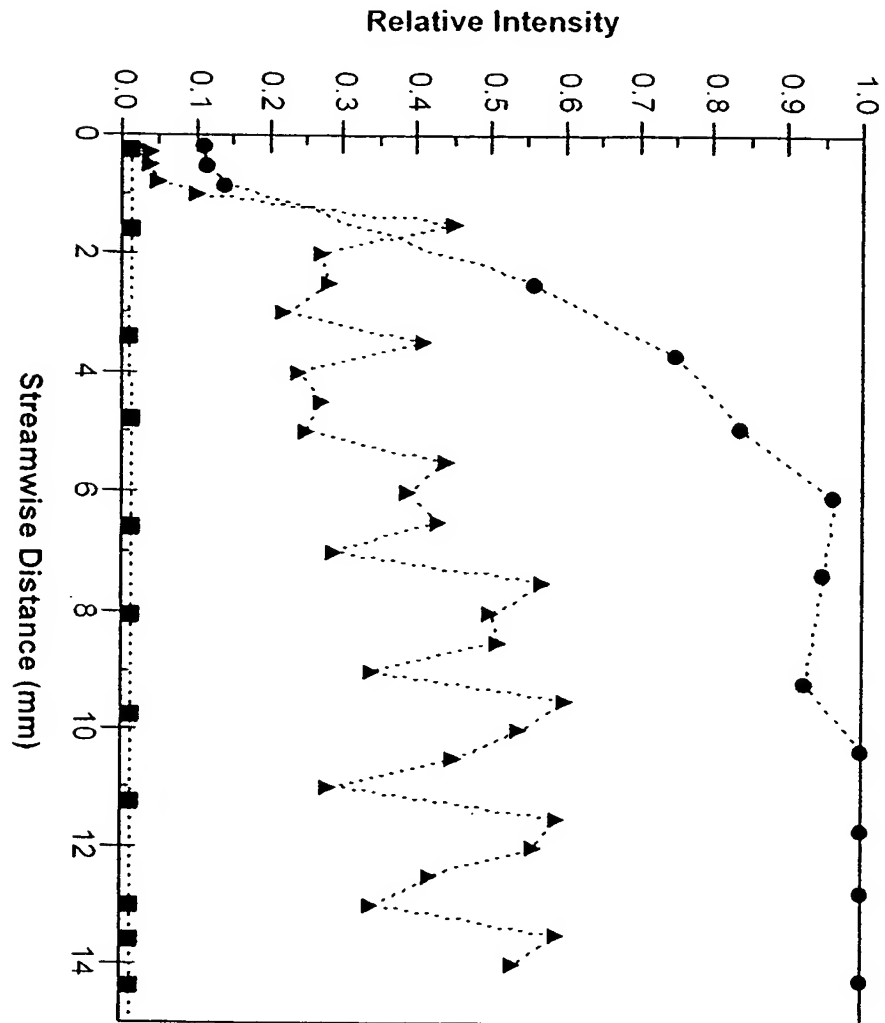


FIG. 16

Circle: 3-D  
Triangle: 2-D  
Square: 1-D  
(all points at  $Re = 30.6$ )

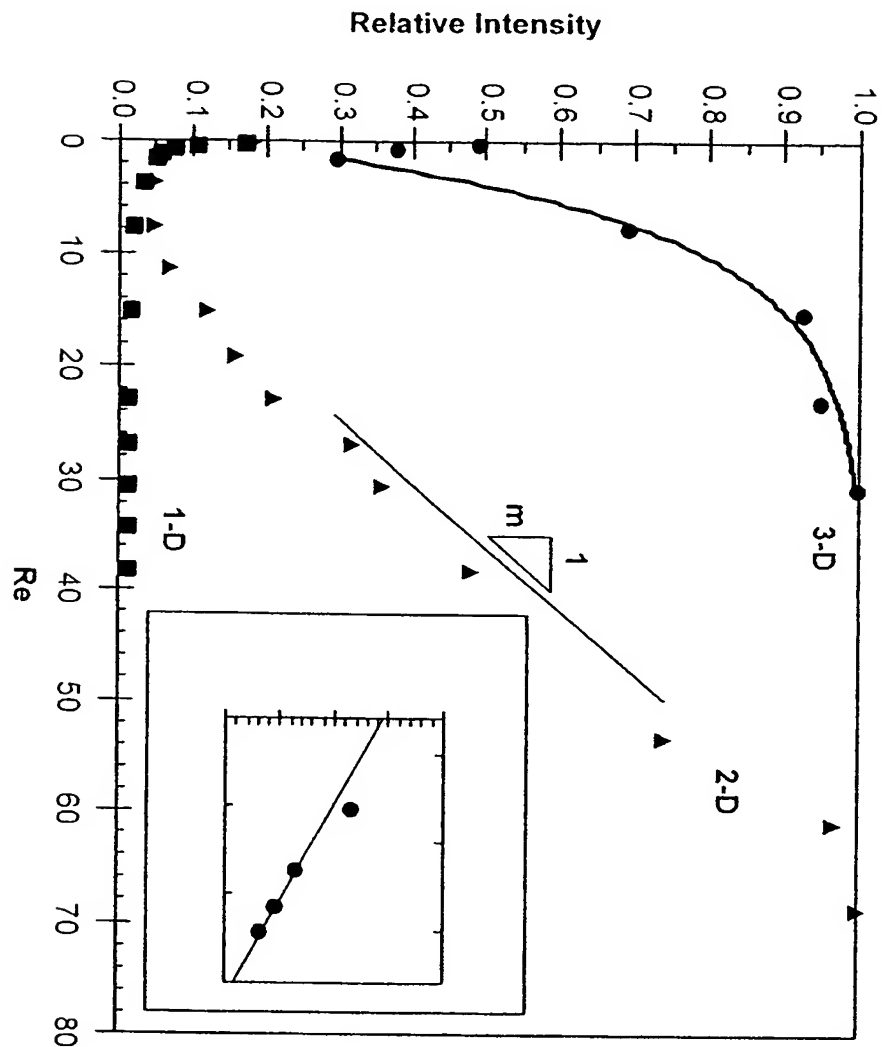


FIG. 17

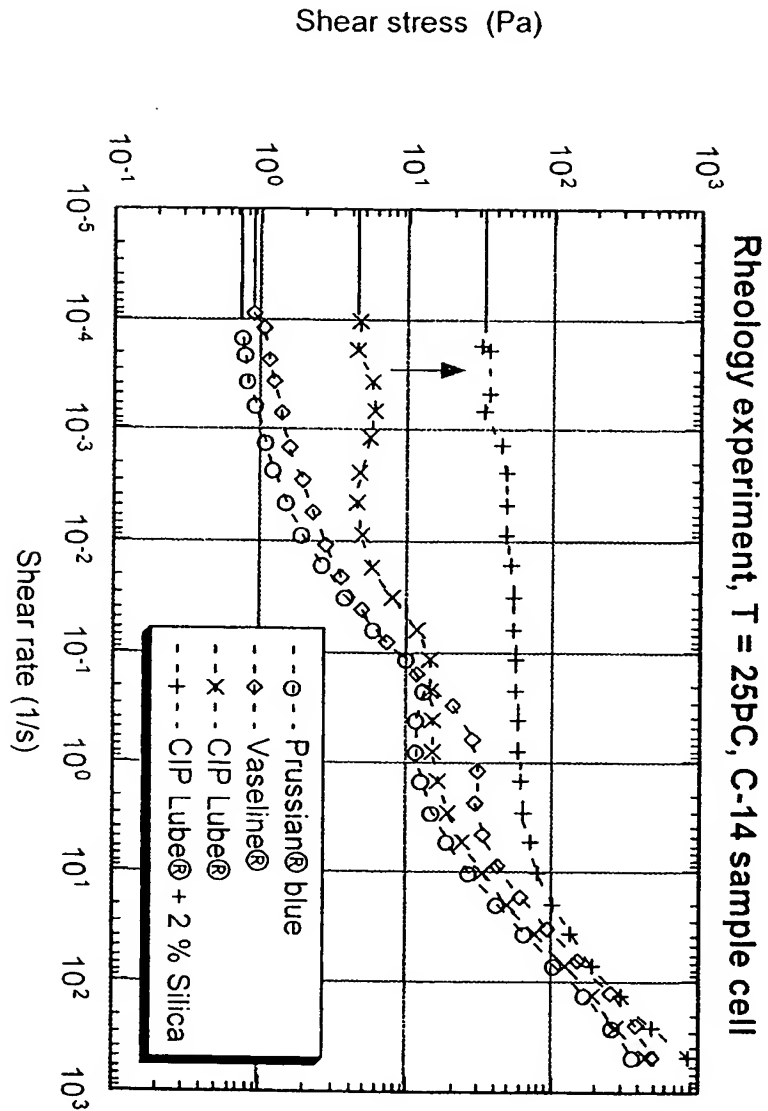


FIG. 18

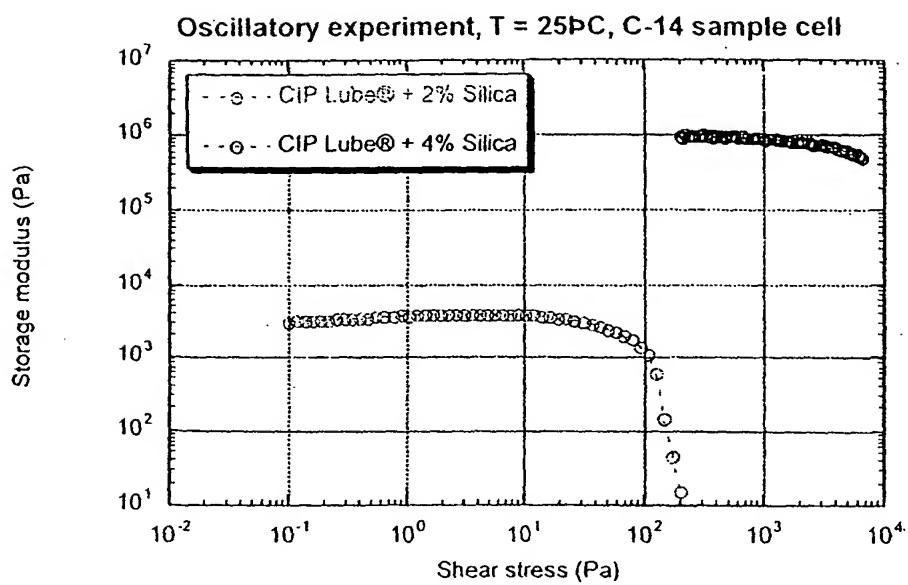


FIG. 19